

COB series

Functionality counts

The **COB** system of panel supports makes it possible to use multipole connectors within electric panels without the traditional metallic enclosures as protection is assured by the electric panel itself or other container.

N.B.: Connectors must not be connected and disconnected under load or when live.

The **COB** system is approved by **UL** as support for multipole connectors (UL ECBT2 and ECBT8 file E115072), as well as by **DNV** and **Bureau Veritas** maritime applications on board ships.

The **COB** system may be assembled in the three following ways:

- On panels with window snap fastening device (**Figure 1**).
- On DIN EN 60715 rails, both lengthways and crossways to the support (**Figure 2**).
- On fixed panels using screws (**Figure 2**).

SUM-UP

- ☑ **reduction in cost and space with respect to metallic enclosures plus traditional terminal blocks enabling “modular” wiring inside panels, very handy in case of maintenance: fast replacement of devices and entire sections leading to shorter downtime;**
- ☑ **possibility of pre-wiring and testing of the connectors at bench, fastening the commissioning of the installation on site;**
- ☑ **easy wiring inspection and tests with coupled connectors, thanks to rear access to the inserts by the overturning (connector hinged and locked on the base support);**
- ☑ **fast mounting in panels thanks to the snap fastening device on the DIN EN 60715 rails;**
- ☑ **sturdy support structure, specific to the size of each insert, it does not require any preparation;**
- ☑ **broad passage for housing of conductor cables;**
- ☑ **mobile parts prearranged for the clamping of bundles of conductors of multi-core cables, to prevent contact with the connector contacts.**

The **COB** system satisfies the most varied installation needs thanks to the interchangeability of the connector inserts. The inserts can be installed as per the table aside.

In addition, the **COB...BC** supports may house the ILME **CR..AD1** and **CR..AD2** series plates for the D-SUB inserts (miniature-connectors).

Product details

- COB, TSF or COB TSFS** insert support blocks (with cable clamp) for mobile mounting, in self-extinguishing thermoplastic material.
- Passage for cable support bands (from 2,2 to 4,8 mm).
- Locations for insertion of identification tags (size 9 x 20 mm).
- Threaded metallic inserts for screws to fix the connectors and possibility of coded connection with the use of specific pins (ILME part: CR 20, CRM, CRF, CR 20 CX, CRM CX and CRF CX) when identical connectors are used.
- COB TCQ** insert carrier block for window mounting in self-extinguishing thermoplastic material, with spring snap fastening.
- Locking device with levers in self-extinguishing thermoplastic material for insert coupling.
- Sturdy cable clamp for clamping multipolar cables with a diameter of up to 25 mm or bundles of unipolar conductors.
- COB..CMS** enclosure for mobile mounting, in self-extinguishing thermoplastic material, IP20 degree of protection.
- Free passage for mounting wired insert with conductor cables.
- Releasable block (latch actuated by pushbutton) [in **COB..BC** kit] in self-extinguishing thermoplastic material, with quick release device for insert turnover, wiring operations, verifications and maintenance
- COB..BC** panel support for bulkhead mounting in self-extinguishing thermoplastic material, sturdy block support structure, with broad passage for housing of conductor cables.
- Holes for fixed fastening with screws without DIN EN 60715 rails.
- Snap fastening on DIN EN 60715 rails, both lengthways and crossways to the support.
- Rollover pins that can be released and allow the use of pre-wired inserts.

Supports for connector inserts

types	COB TCQ			
	COB 06 BC	COB 10 BC	COB 16 BC	COB 24 BC
fixed				
types	COB TSF and COB TSFS			
mobile	COB 06 CMS	COB 10 CMS	COB 16 CMS	COB 24 CMS

Insert centre distance

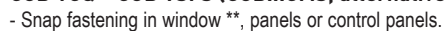
mm				
	44 x 27	57 x 27	49.5 x 16 * 66 x 16 * 77.5 x 27	104 x 27

Insert series and polarity + ⊕

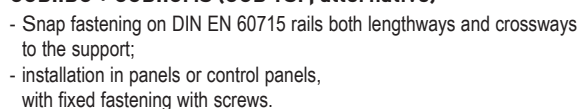
CD			15 *, 25 *, 40	64
CDD	24	42	38 *, 72	108
CDA, CSAH			10 *, 16 *	
CDC			10 *, 16 *	
CDSH, CDS	9	18	27	42
CCE	6	10	16	24
CQE	10	18	32	46
CQEE			40	64
CNE	6	10	16	24
CSH, CSE	6	10	16	24
CMCE		3+2	6+2	10+2 / 16+2
CME		3+2	6+2	10+2 / 16+2
CMSH		3+2	6+2	10+2
CP			6	
CX			4/0, 4/2, 6/36, 12/2	4/8, 6/6
MIXO	2 modules	3 modules	4 modules	6 modules

* for mounting via adapter plates, see page 654

- Snap fastening in window **, panels or control panels.



- Snap fastening on DIN EN 60715 rails both lengthways and crossways to the support;
- installation in panels or control panels, with fixed fastening with screws.



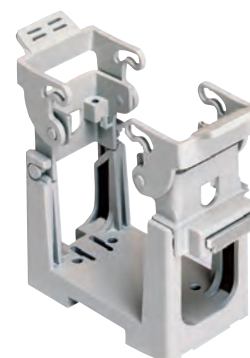
COB panel supports for multipole connectors

inserts		page:
CD	40, 64 poles + ⊕	70, 72
CDD	24, 42, 72, 108 poles + ⊕	76 - 81
CDS	9, 18, 27, 42 poles + ⊕	-
CDSH	9, 18, 27, 42 poles + ⊕	86 - 89
CDSH NC	6 poles + ⊕	95
CNE	6, 10, 16, 24 poles + ⊕	110 - 113
CSE	6, 10, 16, 24 poles + ⊕	-
CSH	6, 10, 16, 24 poles + ⊕	110 - 113
CSH S	6, 10, 16, 24 poles + ⊕	122 - 125
CCE	6, 10, 16, 24 poles + ⊕	130 - 133
CMSH	3+2, 6+2, 10+2 (aux) poles + ⊕	136 - 140
CMCE	3+2, 6+2, 10+2 (aux) poles + ⊕	137 - 141
CSS	6, 10, 16, 24 poles + ⊕	148 - 151
CQE	10, 18, 32, 46 poles + ⊕	168 - 171
CQEE	40, 64 poles + ⊕	176 - 177
CP	6 poles + ⊕	178
CX	8/24, 6/36, 12/2 poles + ⊕	194 - 199
CX	4/0, 4/2, 4/8, 6/6 poles + ⊕	200 - 206
MIXO	2, 3, 4, 6 modules	262 - 317

connector carrier for faceplate mounting in window, snap fastening



connector carrier baseplate for mounting on DIN EN 60715 rail or fixed mounting using screws



description

part No.

part No.

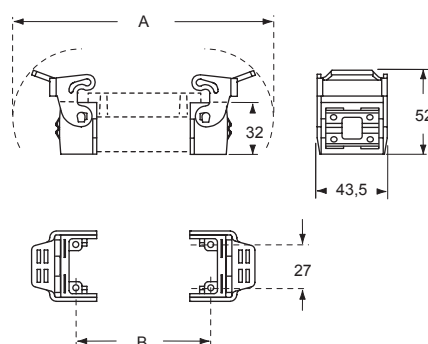
kit with 2 elements, for coupling of inserts
with screw fixing centre distance (short side = 27 mm)

COB TCQ

kit comprising frame and mobile blocks, for insert coupling:
with screw fixing centre distance of 44 x 27 mm
with screw fixing centre distance of 57 x 27 mm
with screw fixing centre distance of 77,5 x 27 mm
with screw fixing centre distance of 104 x 27 mm

It is the responsibility of the installer to verify the continuity of the PE protective earth circuit ⊕ between the two halves of the connector.

COB TCQ

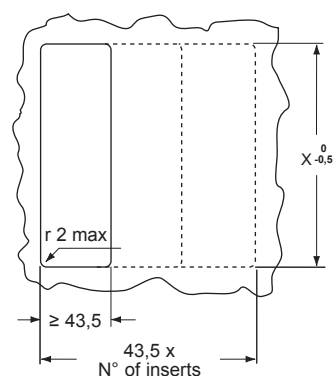


COB TCQ

for inserts	A	B
with centre distance 44 x 27 mm	120	44
with centre distance 57 x 27 mm	133	57
with centre distance 77,5 x 27 mm	153,5	77,5
with centre distance 104 x 27 mm	180	104

panel cut-out COB TCQ

window size on plate thickness 1,3-3 mm



for insert coupling:	X _{0,5}
with centre distance 44 x 27 mm	65
with centre distance 57 x 27 mm	78
with centre distance 77,5 x 27 mm	98
with centre distance 104 x 27 mm	125

COB 06 BC

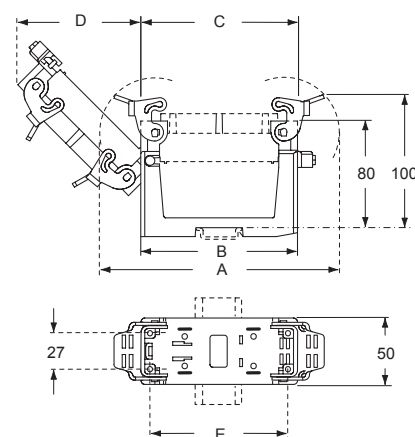
COB 10 BC

COB 16 BC

COB 24 BC

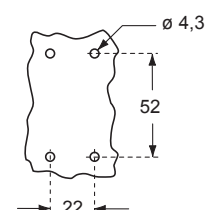
COB BC

overall dimensions with longitudinal DIN rails

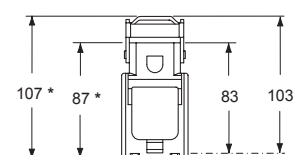


part No.	A	B	C	D	E
COB 06 BC	120	91,5	58	50	44
COB 10 BC	133	91,5	71	59,5	57
COB 16 BC	153,5	91,5	91,5	74	77,5
COB 24 BC	180	118	118	93	104

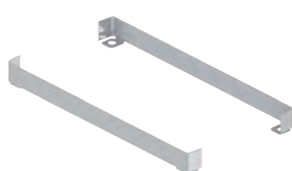
panel cut-out COB BC



overall dimensions without DIN rails (values with "asterisk") overall dimensions with transverse DIN rails



Optional
PE
earth jumpers
(page 655)



CAUS



COB panel supports for multipole connectors

inserts		page:
CD	40, 64 poles + ⊕	70, 72
CDD	24, 42, 72, 108 poles + ⊕	76 - 81
CDS	9, 18, 27, 42 poles + ⊕	-
CDSH	9, 18, 27, 42 poles + ⊕	86 - 89
CDSH NC	6 poles + ⊕	95
CNE	6, 10, 16, 24 poles + ⊕	110 - 113
CSE	6, 10, 16, 24 poles + ⊕	-
CSH	6, 10, 16, 24 poles + ⊕	110 - 113
CSH S	6, 10, 16, 24 poles + ⊕	122 - 125
CCE	6, 10, 16, 24 poles + ⊕	130 - 133
CMSH	3+2, 6+2, 10+2 (aux) poles + ⊕	136 - 140
CMCE	3+2, 6+2, 10+2 (aux) poles + ⊕	137 - 141
CSS	6, 10, 16, 24 poles + ⊕	148 - 151
CQE	10, 18, 32, 46 poles + ⊕	168 - 171
CQEE	40, 64 poles + ⊕	176 - 177
CP	6 poles + ⊕	178
CX	8/24, 6/36, 12/2 poles + ⊕	194 - 199
CX	4/0, 4/2, 4/8, 6/6 poles + ⊕	200 - 206
MIXO	2, 3, 4, 6 modules	262 - 317

insert carrier blocks
for mobile mounting



insert carrier insulated enclosures
for mobile mounting



description	part No.	part No.
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kit with 2 elements, for coupling of inserts
with screw fixing centre distance (short side = 27 mm)
with handle for cable support bands
with handle for cable support or cable clamp bands

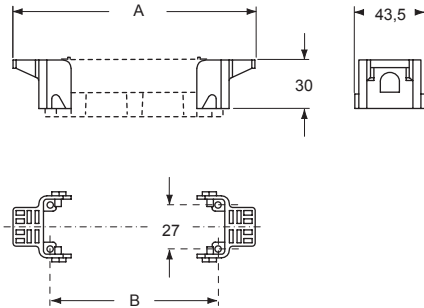
COB TSF
COB TSFS

side entry, with cable clamp
for insert coupling:
with screw fixing centre distance of 44 x 27 mm
with screw fixing centre distance of 57 x 27 mm
with screw fixing centre distance of 77,5 x 27 mm
with screw fixing centre distance of 104 x 27 mm

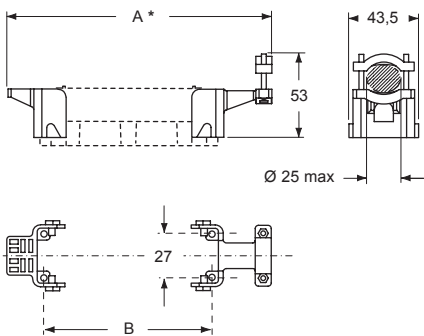
COB 06 CMS
COB 10 CMS
COB 16 CMS
COB 24 CMS

It is the responsibility of the installer to verify the continuity of the PE protective earth circuit ⊕ between the two halves of the connector.

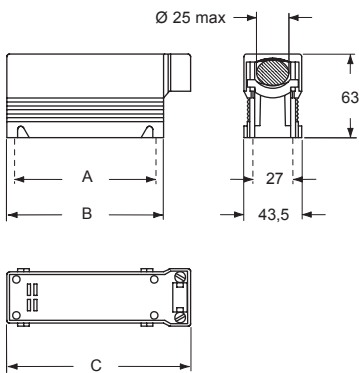
COB TSF



COB TSFS

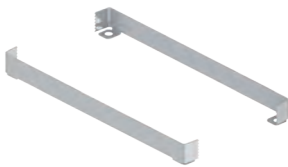


COB CMS



part No.	A	B	C
COB 06 CMS	44	58	74
COB 10 CMS	57	71	87
COB 16 CMS	77,5	91,5	107,5
COB 24 CMS	104	118	134

Optional
PE
earth jumpers
(page 655)

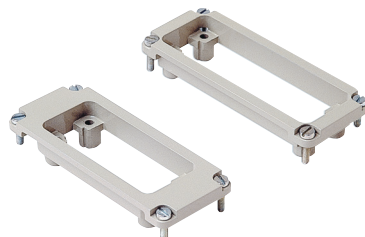


for inserts	A	A *	B
with centre distance 44 x 27 mm	90	104	44
with centre distance 57 x 27 mm	103	117	57
with centre distance 77.5 x 27 mm	123,5	137,5	77,5
with centre distance 104 x 27 mm	150	164	104

COB panel supports for multipole connectors

inserts		page:
CD	15, 25 poles + ⊕	68 - 69
CDD	38 poles + ⊕	77
CSAH	10, 16 poles + ⊕	99 - 101
CDA	10, 16 poles + ⊕	98 - 100
CDC	10, 16 poles + ⊕	104 - 105
MIXO	1 module	264 - 316

adapter plates for insert mounting



levers for coupling with metallic enclosures



description

part No.

part No.

mounting on COB series articles (see below)
for 1 insert with centre distance of 49,5 x 16 mm

CR 15/16

mounting on COB series articles (see below)
for 1 insert with centre distance of 66 x 16 mm

CR 25/16

kit with 2 elements, to be mounted instead of the standard
levers to be coupled with: COB TCQ and COB...BC ¹⁾

COB L

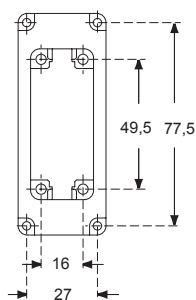
¹⁾ They allow the mounting of aluminium hoods with
4 pegs, size 57.27, 77.27 and 104.27

Adapter plates

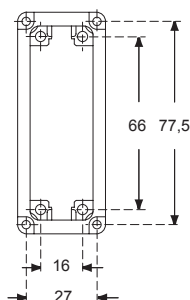
They allow the inserting of inserts of "49.16" and
"66.16" on the following COB series articles:
COB TCQ, COB 16 BC, COB TSF, COB TSFS,
COB 16 CMS

It is the responsibility of the installer to verify the
continuity of the PE protective earth circuit ⊕
between the two halves of the connector.

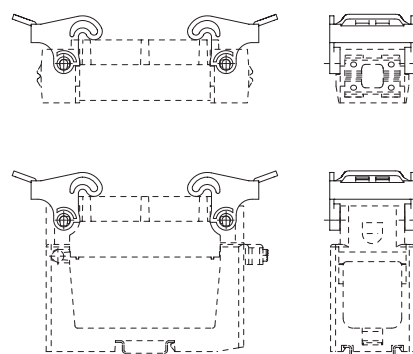
CR 15/16



CR 25/16



COB L





CR..BPE PE earth jumpers

inserts		page:
CD	40, 64 poles + ⊕	70, 72
CDD	24, 42, 72, 108 poles + ⊕	76 - 81
CDS	9, 18, 27, 42 poles + ⊕	-
CDSH	9, 18, 27, 42 poles + ⊕	86 - 89
CDSH NC	6 poles + ⊕	95
CNE	6, 10, 16, 24 poles + ⊕	110 - 113
CSE	6, 10, 16, 24 poles + ⊕	-
CSH	6, 10, 16, 24 poles + ⊕	110 - 113
CSH S	6, 10, 16, 24 poles + ⊕	122 - 125
CCE	6, 10, 16, 24 poles + ⊕	130 - 133
CMSH	3+2, 6+2, 10+2 (aux) poles + ⊕	136 - 140
CMCE	3+2, 6+2, 10+2 (aux) poles + ⊕	137 - 141
CSS	6, 10, 16, 24 poles + ⊕	148 - 151
CT, CTSE	6, 10, 16, 24 poles + ⊕	160 - 163
CQE	10, 18, 32, 46 poles + ⊕	168 - 171
CQEE	40, 64 poles + ⊕	176 - 177
CP	6 poles + ⊕	178
CX	8/24, 6/36, 12/2 poles + ⊕	194 - 199

PE optional earth jumpers



description	part No.
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galvanized brass, to be optionally used with
COB series:
for inserts "44.27" size
for inserts "57.27" size
for inserts "77.27" size
for inserts "104.27" size

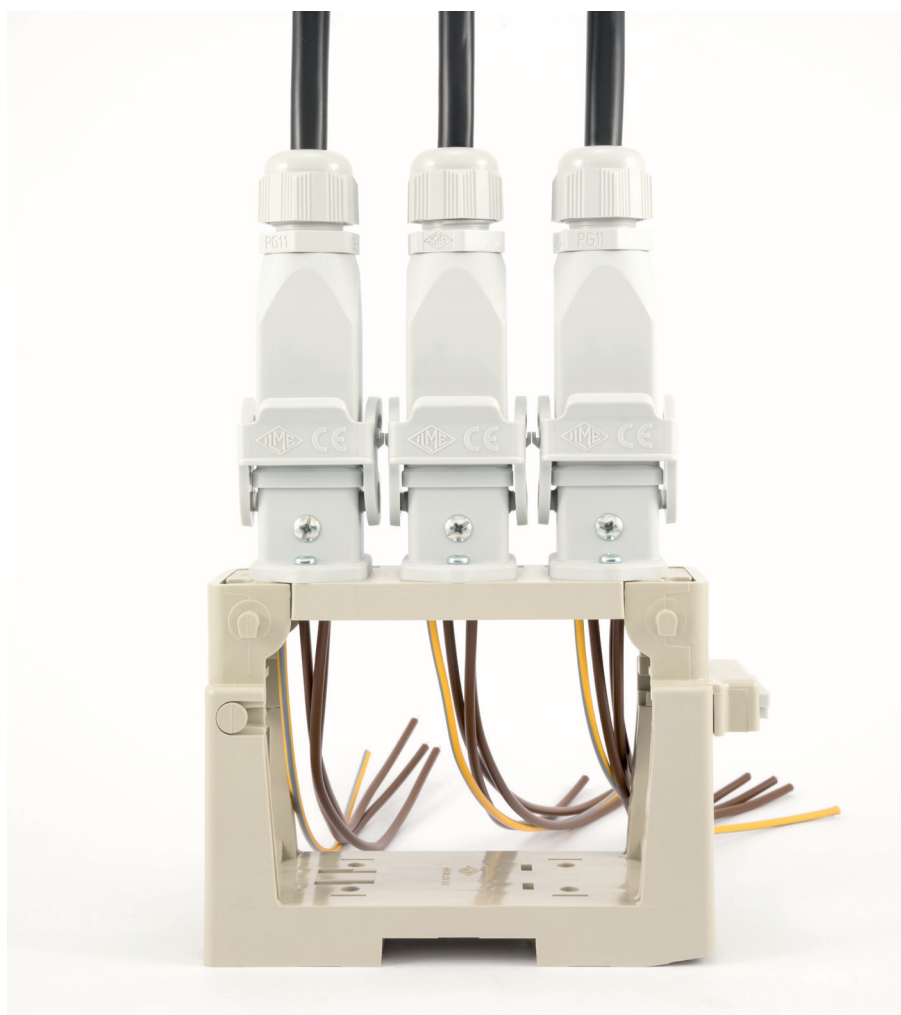
CR 06 BPE
CR 10 BPE
CR 16 BPE
CR 24 BPE

CR...BPE accessories PE (protective earth) jumpers could be mounted under the connector inserts for the connection of the two insert's PE plates.

To guarantee to proper alignment of the insert inside the enclosure, it is necessary to use both jumpers supplied (in the same housing or hood); the jumpers are not usable individually.

Furthermore the user is responsible for verifying the continuity of the PE connection ⊕ (male and female) independently of using CR...BPE earth jumpers.

COB SUPPORT FOR “21.21” INSERTS FOR DIN RAIL MOUNT



Special COB support suitable
to be fixed on DIN rail to host
up to 3 “21.21” inserts



Find more
information on
our products at
www.ilme.com

TECHNICAL FEATURES

COB 03/3 BC

The **COB** system of **panel supports** for multipole connectors that allows their installation and use within electric panels without the traditional metallic enclosures, covered until now only those inserts of classic sizes "44.27" through "104.27" and, on a "77.27" COB support completed by the special adapter plates **CR 15/16** and **CR 25/16**, those inserts of compact sizes "49.16" (CD 15, CDA 10, CDC 10, CSAH 10) and "66.16" (CD 25, CDD 38, CDA 16, CDC 16, CSAH 16).

The new **COB 03/3 BC** extends now the same reliable support for use inside control panels to the growing family of inserts sized "21.21": series **CD** (CD 07, CD 08), **CK** (CK 03 /04) and **CKSH** Squich® (CKSH 03 /04), **CQ** (CQ 05, CQ 07, CQ 12, CQ 21) **CQ4** (CQ4 02, CQ4 03) and all the "21.21" adapter inserts for data connectors and/or fibre optic connectors (CJ K, CJZ, CJZA, CJK 8FT /8MT /8IMT /8IFT /8B IFT /8P IFT, CJK 8M, CUK 2FT /3FT, CLK 04 SCF /SCF-H /SCM, CX 1/2 BD, CXL 2/4 ...).

In the "104.27" size of a COB 24 BC, the new hinged pivoting insulating support **COB 03/3 BC**, completed with relevant bulkhead mounting housing CK 03 I (insulating) or CKA(X)(X) 03 I (metal) (to be chosen with the locking lever of preference) and the corresponding hood, provides support to up to three connector inserts size "21.21" with possibility of fixing this new COB 03/3 BC support on a standard DIN EN 60715 rail.

The system discloses new practical applications, introducing the use of connectorized wiring with a vast choice of "21.21" sized connectors in replacement of terminal blocks, in a considerably

reduced space when snapped on crossways on the DIN EN 60715 rail in the cabinet (multiple supports may fit side by side on the rail), with possibility to independently disconnect subsets of connections inside the cabinet (e.g. for faster maintenance, reducing downtime of the control panel).

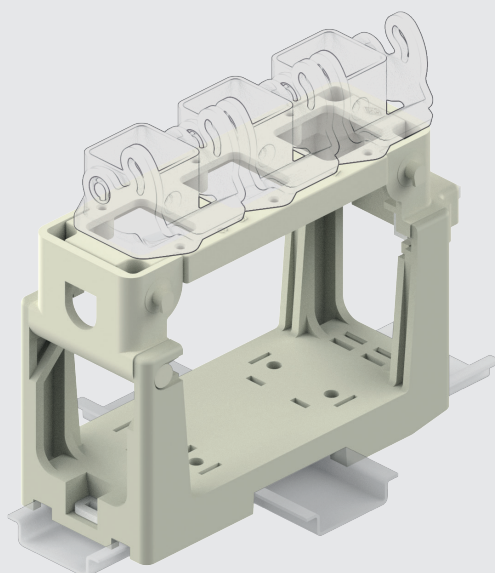
Product details:

- **COB 03/3 BC** panel support in self-extinguishing thermoplastic insulating material, sturdy block support structure, with broad passage of outgoing conductor cables from up to 3 "21.21" sized connector inserts installed in relevant housings (to be chosen and purchased separately, either insulating type CK or metal type CKA with the preferred choice of locking lever).
- Holes for fixed installation through fastening screws (when no DIN EN 60715 rail is employed).
- Snap fastening on DIN EN 60715 rails, both lengthways and crossways to the support.
- Seats for bulkhead mounting housings (up to 3) fixing screws (self-tapping screws provided).

cULus approved (no Type rating assigned as for all series COB already cULus approved under ECBT2.E115072 and ECBT8.E115082).

Lower and Upper Limiting Temperatures (LLT, ULT):
-40 °C +125 °C

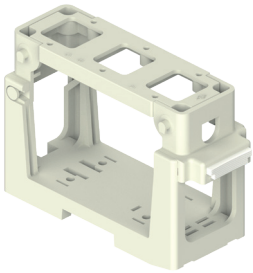
compatible with
"21.21" size
CK 03 I and
CKA (X) (XX) 03 I
enclosures
(not included)



COB 03/3 BC panel supports for multipole connectors

inserts	pages:
CK	3 and 4 poles + ⊕ 58
CKS	3 and 4 poles + ⊕ -
CKSH	3 and 4 poles + ⊕ 63
CD	7 poles + ⊕ 66
CD	8 poles 67
CQ4	2 poles + ⊕ 182
CQ4	3 poles + ⊕ 184
CQ4	5 poles + ⊕ 186
CQ	7 poles + ⊕ 187
CQ	12 poles + ⊕ 189
CQ	21 poles 190
only for I (straight) housings (if the counterpart has glued gasket):	
CJ K	223
CJZ	224
CJZA	224
CJK 8FT, CJK 8MT	226
CJK 8IFT	228
CJK 8IMT	226, 228
CJK 8B IFT, CJK 8P IFT	228
CJK 8M	233
CUK 2FT, CUK 3FT	236
CLK 04 SC	239
CX 1/2 BD	243
CXL 2/4 SF, CXL 2/4 SM	250
refer to CN.19 pages	

connector carrier baseplate for mounting on DIN EN 60715 rail or fixed mounting using screws



description

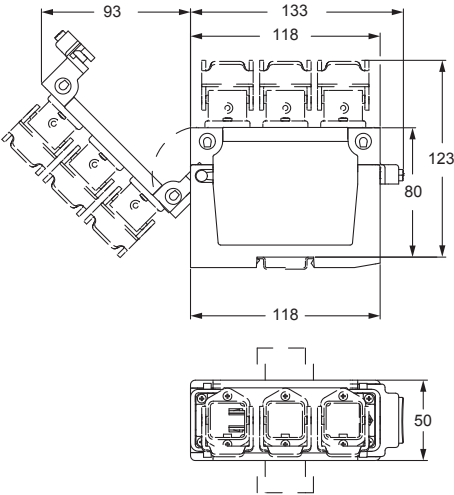
part No.

kit comprising frame and mobile blocks, for insert coupling:
with screw fixing centre distance of 21 x 21 mm

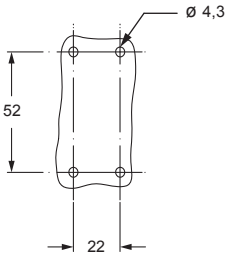
COB 03/3 BC

It is the responsibility of the installer to verify the continuity of the PE protective earth circuit ⊕ between the two halves of the connector.

overall dimensions with longitudinal DIN rails

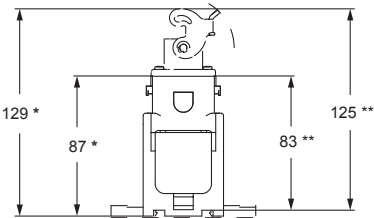


panel cut-out for COB 03/3, for direct fixed mounting without DIN 60715 rails



* overall dimensions with transverse DIN rails

** overall dimensions without transverse DIN rails



cULus approved

COB 03/3 BC panel supports for multipole connectors

PRODUCT DETAILS

For the whole COB Series product details, please refer to pages 650 - 651 of CN.19 catalogue.

COB 03/3 BC

- 1 Releasable locking of the hinged frame (in **COB...BC** kit) in self-extinguishing thermoplastic material, with quick release device for insert replacement, wiring operations, check and maintenance.
- 2 **COB...BC** hinged panel support for DIN EN 60715 rail mounting (rail not provided) or direct wall fastening with screws (not provided), in self-extinguishing thermoplastic material, sturdy block support structure, with broad passage for housing of conductor cables.
- 3 Holes for direct wall fastening with screws without DIN EN 60715 rails.
- 4 Snap fastening on DIN EN 60715 rails, both lengthways and crossways to the support.
- 5 Releasable rollover hinging pins.
- 6 Adapter plate for up to 3 bulkhead mounting enclosures size “21.21” (not provided), for “21.21” connector inserts.
- 7 Kit of 6 self-tapping screws for plastics, for mounting of up to 3 “21.21” enclosures (not provided) on the adapter plate.
- 8 Locations for insertion of identification tags (size 9 x 20 mm).

